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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/420,565	10/19/1999	NICHOLAS G. DUFFIELD	113605	2979

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S H DWORETSKY
AT&T CORPORATION
PO BOX 4110
MIDDLETOWN, NJ 07748

EXAMINER

HO, CHUONG T

ART UNIT PAPER NUMBER

2664

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,565

Applicant(s)

DUFFIELD ET AL.

Examiner

Chuong Ho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 15, 17-21 and 35 is/are rejected.
- 7) ☒ Claim(s) 2-14, 22-34 and 36-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The amendment filed 11/10/03 have been entered and made of record.
2. Applicant's amendment filed 11/10/03 with respect to claims 1-39 have been considered but they are not persuasive.

In the page 13, line 18, the applicant alleged that "Kato does not disclose or suggest anything to a "hose" as claimed"

The applicant's argument is not persuasive.

Kato disclose or suggest "hose" (the ATM switch 101) as claimed (see col. 8, lines 34-38). Therefore, Kato disclose or suggest a "hose" as claimed.

3. Claims 1-15,17-39 are pending .

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 15, 17-20, 21, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ma et al. (U.S.Patent No. 5,953,338) in view of Kato (U.S.Patent No. 5,999,514).

In the claim 1, see figure 2, Ma et al. discloses precesses of monitoring a utilization level of a grouping of a virtual path on a physical interface comprises checking the utilization level of the virtual path, updating an amount of available bandwidth for the virtual path, and comparing

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the amount of available bandwidth with a maximum threshold for the available bandwidth and setting an overload condition if the amount exceeds the maximum threshold and clearing the overload condition if the amount is below the maximum threshold (see abstract); comprising:

- ◇ coupling the hose (130 A) to endpoint (110 K, 110J) associated with other hoses (130 A, 130 B, 130 C, 130 D, 130 E, 130 F) via the routing paths in a network (see figure 2, col. 3, lines 48-67);
- ◇ allocating network resources (bandwidth allocation) to support communications between the hose and the other hose (see figure 2, col. 2, lines 13-30).

However, Ma et al. is silent as to the description of the physical interface 133.

See figures 4, 6, Kato discloses a unique VPCI is defined, for example, for the subscriber line 102 #A, as shown in FIG. 4 (a). Additionally, if an arbitrary plural number of VPCIs among the respective VPCIs belonging to the subscriber line 102 # A, for example, the VPCI#a and #b are formed into a VPCI group X, according to this embodiment. Then, the attribute data A-c is defined for VPCI #c belonging to the subscriber line 102 # A as the attribute data, as shown in FIG. 4(b). For the VPCIs #a and #b belonging to the subscriber line 102 # A, the common attribute data X is defined as the attribute data of the VPCI group X including these VPCIs. Also the definition data for grouping the VPCIs #a and #b are formed into the VPCI group X, as shown in FIG. 4 (b); comprises:

- ◇ establishing a hose for each of a plurality of endpoints of a virtual private network, wherein the hose does not reference another endpoint of the virtual private network at

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establishment (see figures 4, 6, col. 8, lines 45-67, col. 10, lines 1-40, see col. 2, lines 40-67, col. 3, lines 5-10, lines 25-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ma's system with the teaching of Kato to establish a hose for each of a plurality of endpoints of a virtual private network, the hose does not reference another endpoint at establishment in order to handle the data packets according to an attribute data storing data unit. Therefore, the combined system would have been enable a subscriber to accommodate in an ATM switch on a network side via virtual path multiplexer (VP-MUX).

6. In the claim 21, Ma et al. discloses precesses of monitoring a utilization level of a grouping of a virtual path on a physical interface comprises checking the utilization level of the virtual path, updating an amount of available bandwidth for the virtual path, and comparing the amount of available bandwidth with a maximum threshold for the available bandwidth and setting an overload condition if the amount exceeds the maximum threshold and clearing the overload condition if the amount is below the maximum threshold (see abstract); comprising:

- ◇ a plurality of routing paths in the network, the routing paths coupling the hose to endpoints (110K, 110J, 110A, 110B) associated with other hoses (see figure 2, col. 3, lines 48-67);
- ◇ virtual private network service provider (145); the virtual private network service provider allocating network resources to support communications between the hose and the other hoses (see figure 2, col. 3, lines 48-67).

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However, Ma et al. Is silent as to the description of the physical interface 133.

See figures 4, 6, Kato discloses a unique VPCI is defined, for example, for the subscriber line 102 #A, as shown in FIG. 4 (a). Additionally, if an arbitrary plural number of VPCIs among the respective VPCIs belonging to the subscriber line 102 # A, for example, the VPCI#a and #b are formed into a VPCI group X, according to this embodiment. Then, the attribute data A-c is defined for VPCI #c belonging to the subscriber line 102 # A as the attribute data, as shown in FIG. 4(b). For the VPCIs #a and #b belonging to the subscriber line 102 # A, the common attribute data X is defined as the attribute data of the VPCI group X including these VPCIs. Also the definition data for grouping the VPCIs #a and #b are formed into the VPCI group X, as shown in FIG. 4 (b); comprises:

- ◇ establishing a hose for each of a plurality of endpoints of a virtual private network, wherein the hose does not reference another endpoint of the virtual private network at establishment (see figures 4, 6, col. 8, lines 45-67, col. 10, lines 1-40, see col. 2, lines 40-67, col. 3, lines 5-10, lines 25-40).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ma's system with the teaching of Kato to establish a hose for each of a plurality of endpoints of a virtual private network, the hose does not reference another endpoint at establishment in order to handle the data packets according to an attribute data storing data unit. Therefore, the combined system would have been enable a subscriber to accommodate in an ATM switch on a network side via virtual path multiplexer (VP-MUX).

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7. In the claims 15, 35, Kato discloses the routing paths is determined based on one or more of : network connectivity; a hose identification; and virtual private network identification (see col. 2, lines 1-67, col. 3, lines 5-40).

8. In the claims 17, 18, Kato discloses selecting the routing paths based on a source tree or a sink tree for each of the endpoints; and minimizing a bandwidth allocation between nodes of the network by maximizing sharing of same paths for branches of the sources or the sink tree extending between different ones of the endpoints (see col. 2, lines 5-67, col. 3, lines 5-40).

9. In the claims 19, Kato discloses selecting the routing paths based on source trees or sink trees corresponding to all endpoints of one or more virtual private networks; and minimizing a bandwidth allocation between nodes of the network by maximizing sharing of same paths for branches of the sources or the sink trees extending between different ones of the endpoints for all the virtual private networks (see col. 2, lines 5-67, col. 3, lines 5-40).

10. In the claim 20, Ma et al. discloses the network is an Internet Protocol Network (see col.1 2, lines 1-5).

Allowable Subject Matter

11. Claims 2-14, 22-34, 36-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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12. The following is an examiner's statement of reasons for allowance: the prior art (6331986, 6366563, 6272110, 6097722, 5953338, 5999514) of record does not appear to teach or render obvious the claimed limitations, as recited from dependent claims 2, 22: "the establishing comprises specifying a service level agreement for the hose, the service level agreement including a hose profile and other information for controlling and managing the hose".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Ho whose telephone number is (703)306-4529. The examiner can normally be reached on Monday-Friday from 9am to 3pm.

14. If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington, Chin, can be reached on (703)305-4633.

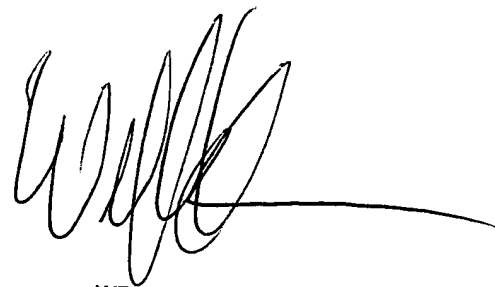
Any inquiry of a general nature or relating to the status of this application or proceeding should be direct to the group receptionist whose telephone number is (703) 305-3900.

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CH

Date 04-10-04

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600